



DEPARTMENT OF HEALTH & HUMAN SERVICES

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Memorandum

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National Institutes of Health
National Institute of
Environmental Health Sciences
P.O. Box 12233
Research Triangle Park, N.C. 27709

Date: September 29, 1998
From: Errol Zeiger
Subject: Salmonella mutagenicity testing of Ammonium perchlorate
To: Annie Jarabek
Vickie Dellarco

The results of the Salmonella mutagenicity testing of Ammonium perchlorate are attached. The values presented are the means of triplicate plates; the numbers should not be quoted because the calculations are not complete and have not been checked.

H2O GB
The chemical was dissolved in DMSO and tested using the preincubation procedure at doses from 100 to 10,000 µg/plate, with and without metabolic activation from Aroclor induced rat and hamster livers. All tests used triplicate plates.

Ammonium perchlorate was not toxic or mutagenic under the conditions of this test.

Errol

Aliquot: A85555 Ammonium perchlorate lab: SRI solvent: DMso H₂O preinc

Dose	TA 98					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	22 ±	24 ±	24 ±	27 ±	17 ±	25 ±
100	17 ±	29 ±	23 ±	32 ±	22 ±	35 ±
333	17 ±	21 ±	24 ±	29 ±	20 ±	26 ±
1000	23 ±	24 ±	21 ±	22 ±	21 ±	23 ±
3333	18 ±	21 ±	20 ±	35 ±	17 ±	30 ±
10000	18 ±	26 ±	19 ±	29 ±	20 ±	27 ±
pos.	355 ±	362 ±	536 ±	466 ±	545 ±	543 ±

Dose	TA 100					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	155 ±	128 ±	147 ±	126 ±	173 ±	125 ±
100	152 ±	121 ±	161 ±	131 ±	161 ±	128 ±
333	155 ±	124 ±	151 ±	122 ±	155 ±	132 ±
1000	163 ±	128 ±	148 ±	133 ±	164 ±	133 ±
3333	147 ±	132 ±	159 ±	135 ±	172 ±	121 ±
10000	157 ±	126 ±	146 ±	126 ±	170 ±	119 ±
pos.	928 ±	937 ±	657 ±	540 ±	722 ±	629 ±

Dose	TA 1535					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	12 ±	9 ±	11 ±	15 ±	9 ±	16 ±
100	13 ±	9 ±	15 ±	16 ±	10 ±	13 ±
333	10 ±	14 ±	12 ±	9 ±	14 ±	11 ±
1000	10 ±	10 ±	11 ±	11 ±	12 ±	13 ±
3333	13 ±	12 ±	13 ±	12 ±	12 ±	10 ±
10000	10 ±	10 ±	8 ±	10 ±	9 ±	12 ±
pos.	835 ±	856 ±	110 ±	137 ±	131 ±	152 ±

Dose	TA 97					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	121 ±	135 ±	158 ±	157 ±	168 ±	178 ±
100	130 ±	141 ±	179 ±	167 ±	183 ±	182 ±
333	131 ±	132 ±	174 ±	153 ±	172 ±	170 ±
1000	140 ±	161 ±	168 ±	149 ±	191 ±	162 ±
3333	134 ±	164 ±	173 ±	154 ±	192 ±	153 ±
10000	124 ±	122 ±	167 ±	143 ±	131 ±	177 ±
pos.	508 ±	553 ±	517 ±	656 ±	592 ±	513 ±

Dose	TA 102					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	163 ±	205 ±	281 ±	274 ±	269 ±	312 ±
100	182 ±	207 ±	275 ±	302 ±	270 ±	319 ±
333	174 ±	220 ±	262 ±	306 ±	257 ±	316 ±
1000	161 ±	232 ±	276 ±	296 ±	265 ±	287 ±
3333	182 ±	216 ±	265 ±	271 ±	240 ±	291 ±
10000	176 ±	190 ±	270 ±	280 ±	256 ±	317 ±
pos.	751 ±	739 ±	942 ±	1043 ±	1049 ±	1182 ±

Dose	TA 104					
	NA (-)	NA (-)	30% RLI (-)	10% RLI (-)	30% HLI (-)	10% HLI (-)
μg/plate	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM	MEAN ± SEM
0	247 ±	317 ±	334 ±	422 ±	334 ±	436 ±
100	280 ±	341 ±	310 ±	404 ±	344 ±	439 ±
333	254 ±	318 ±	344 ±	426 ±	373 ±	374 ±
1000	250 ±	326 ±	350 ±	451 ±	385 ±	426 ±
3333	272 ±	338 ±	344 ±	413 ±	351 ±	424 ±
10000	254 ±	341 ±	331 ±	450 ±	341 ±	442 ±
pos.	847 ±	843 ±	1225 ±	962 ±	1260 ±	1200 ±